

How Root Canals Generate Toxins

*The truth
about root-
canal fillings
will make you
think twice
about your
next dental
appointment.*

by Hal A. Huggins, D.D.S.

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THE DANGERS OF ROOT-CANAL FILLINGS ARE EXPOSED

"A new truth," warned Weston Price, "is like a new sense. You are now able to see things that you could not see before."

Weston Price, former Director of Research for the American Dental Association for 14 years, spent 35 years of his professional career researching the systemic diseases of the heart, kidney, uterus, nervous system and endocrine system, that resulted from toxins seeping out of root-canal-filled teeth. A certain percentage of people are sensitive to toxins that are manufactured within these dead teeth.

Price saw many truths that even today we have a hard time seeing, for we are bogged down in 'but-we've-always-done-it-that-way' thinking. We are too habitual to adopt his sense of 'new truth'. His observations led him far beyond the accepted remedies of that day. Incidentally, those remedies are basically the same treatments that are the foundation of today's root canal fundamentals. He researched 24 of those fundamentals and found each to be lacking.

Some of the 'lacking' fundamentals included: X-rays revealing the presence of infection; infections expressing themselves as bone absorption; a given dental infection will express itself approximately the same in all people; if pus is flowing from a tooth it is a dangerous sign; and local comfort of a treated tooth is evidence of the success of a root-filled tooth procedure.

He made quite a stir in the dental community. Even with his vast experience, educational background, and thousands of controlled experiments, dentists were resistant to changing their thinking about the root canal procedures that they had already been performing for decades. What did Price find that convinced him that people could not tolerate root canals?

First he observed that if he removed root-filled teeth from people suffering from kidney and heart disease, in most cases they would improve. In an effort to establish a relationship between the tooth and the disease, he inserted the root-filled teeth under the skin of rabbits. Rabbits have a similar immune system to that of humans. In fact, a normal, non-infected human tooth (as removed for orthodontic reasons) can be inserted under the skin of a rabbit for a year with practically no reaction. A thin film will form over it, but microscopically there are no rejection cells present.

When a root-filled tooth was implanted under the skin of a rabbit, the rabbit died within less than two days, sometimes within 12 hours. If a very small fragment (as an extract of the tooth) were used, within two weeks the rabbit would lose over 20% of its body weight, and die of heart disease or kidney disease if that is what the human donor had. To further challenge this observation, he removed the fragment and transferred it to another rabbit. In two weeks he observed a duplicate performance. In one case, he reimplanted the same tooth fragment in 100 rabbits, each in succession dying from the same disease that the human had had. In most experimental cases he transferred the fragment 30 times.

HOWE'S PAPER—THE DENTAL ASSOCIATION FIGHTS BACK

As obvious as the consequences were, dentists persisted in placing root canal fillings. This, of course, caused a hot argument among dentists, and soon Percy R. Howe published a paper in the *Journal of the National Dental Association* rejecting Price's findings. Howe injected large amounts of the bacteria streptococcus into rabbits, and found no adverse reaction. This 1920 publication is still used as proof that root-filled teeth are not harmful to humans.

In what way did Price show that Howe's paper was wrong?

In looking for a reason for the difference between Howe's findings and his own, Price

investigated the methods of sterilisation of root canals (similar to today's technology) and found that teeth retained their sterility for only about two days. Most lost sterility within less than 24 hours. Why? Where were these bacteria hiding? A tooth contains enamel, dentin, and a central pulp chamber. The central pulp chamber can be sterilised to a reasonable degree by removing its contents of nerves, arteries, and veins and flushing it with chemicals.

The dentin, however, is composed of thousands of tiny dentin tubules, unreachable by this flushing procedure. Although microscopic in size, these tubules are quite adequate to house billions of bacteria. If one were to take a front tooth and arrange the dentin tubules end to end, they would reach for three miles. The tubules are wide enough to accommodate eight streptococci abreast.

Where do these bacteria originally come from? They are *Streptococcus viridans* and are normal inhabitants of the mouth. When a tooth becomes decay-prone, they invade the tooth and start killing tooth tissues. When they reach the pulp chamber, they invade not only the pulp tissue but also the dentin tubules. When a dentist cleans out the pulp chamber, he removes all the bacteria in the chamber, but those bacteria that went into the tubules are still there. Then the dentist seals the tooth, and that's when a new truth begins that points out Howe's misinterpretation.

In an 'anaerobic' condition, or one that contains no oxygen, these streptococci (specifically diplo- and short-chain strains) mutate, undergoing a slight change in body form and metabolism to adapt to this new environment. Now, instead of producing slightly offensive waste products, these transformed bacteria produce a potent poison called a toxin. Our immune system does not like the toxin, but the cells of our immune system cannot get in through the tiny holes in the outside of the root to destroy the bacteria. The toxins can seep out. Fluids containing nutrients can seep into the tooth, so the bacteria continue to thrive in confinement.

TOXIN-FORMING BACTERIA

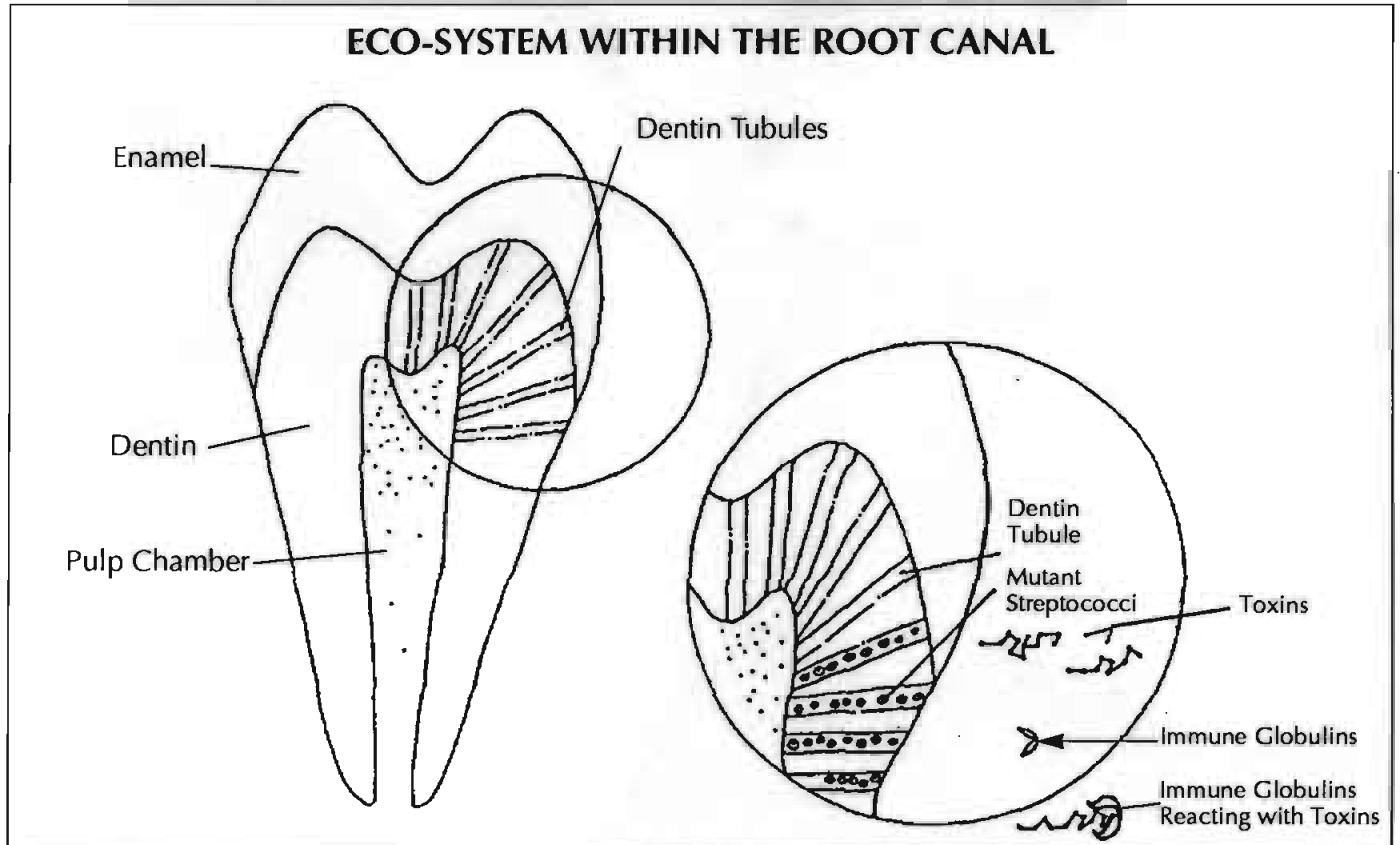
Howe's research addressed only the aerobic variety of bacteria. It completely missed the toxin-forming bacteria.

If the body launches a big fight against the toxins, then pus forms around the tooth. Conventional wisdom says that pus is bad for the patient, and we must give antibiotics until it is gone. Price found that pus was nearly sterile, and, though socially disagreeable, its presence was a sign of successfully quarantining the toxins from the tooth. That was certainly a new idea, and not readily accepted as a 'new truth'.

Another upsetting situation pointed out by Price was that X-rays frequently miss abscesses that are on the front or back of a tooth. About 30% of the teeth have extra canals which may exit anywhere from half-way down the tooth, to all the way down at the tip like they are supposed to. They can exit on the front, back or side of the tooth. Those 'other' canals that abscess are the ones that are apt to be missed on X-ray.

What about root-filled teeth that don't form pus or give pain?

If the body's immune system is compromised, then very little action is initiated around the root-filled tooth. Certain enzymes may escape which stimulate the bone to form what is termed "condensing osteitis" around the tooth. This is heavier-than-usual bone. It may actually fuse the surrounding bone to the tooth. On X-ray films, this will appear as a white line and is considered to reflect excellent healing. This tooth gives no trouble locally as far as pain and pus are concerned, but the toxins that seep out get into the circulation and, with little immune system interference, seek a specific organ to attack. This Price called "tissue localisation". Price had demonstrated this by transferring sections of root-filled teeth from animal to animal, generating the same disease with each transfer.



What is the factor that determines who is most susceptible to having problems from root canals?

Price recorded 140,000 determinations in 1,200 patients to come up with his answer to this question. Bottom line, it is heredity. If your biological inheritance for two generations back, including brothers and sisters of your grandparents, were resistant to degenerative diseases, then you are of good stock. You are not apt to launch an immune response against a root canal. On the other hand, if there were a high frequency of heart, kidney, diabetes, reproductive disorders, etc., then you are more apt to be susceptible.

Sometimes a person of healthy genetic stock can develop diseases as a result of reactions to root-filled teeth. How does this happen?

Most of us are aware that abuse of alcohol, drugs and caffeine stresses our systems. Price found that there were other stressors that were just as great. Exposure to these types of stressors tended to push people over their threshold and allow the root-canal tooth to become a problem. The challenge could exceed the person's resistance.

He found that the two greatest stressors were pregnancy and influenza. Under the influence of either of these conditions, the toxins from root-filled teeth were much more apt to produce disease at the person's specific susceptible site. Other stressors that upset root-filled teeth were grief, anxiety, chilling, severe hunger, acute and chronic infection.

What if you have a root canal and want it removed? Do you just pull the tooth?

No, this might give more problems. When these teeth are removed, the attachment from the tooth to the bone, called the periodontal ligament, must be removed with a dental bur at the

same time. This irritates the old bone, and stimulates it to form new bone. Recently in my studies at the University of Colorado where I was finishing a masters program in science, we were looking at biopsies of the bone under the root-filled teeth that we had removed. The lymphocytes of autoimmune disease were embedded at least a millimetre into the bone, and sometimes more. All this must be removed if good bone-healing is to be achieved.

Price's research, published in many peer-reviewed journals (such as the *Journal of the American Medical Association* and the *Journal of the American Dental Association*), etc., has never been refuted. Commercial expediency has, no doubt, influenced the profession in its apparent decision to ignore this research (that of one of the most brilliant scientific minds) to the detriment of an ever-increasing proportion of the population.

Weston Price, certainly gave us a new insight with his 'new truth', and have given many of us dentists cause for alarm. We must heed his advice and voluminous research and set our personal prejudices aside to consider his investigations. After all, it is the quality of total life that is our concern, not just the tooth, the whole tooth, and nothing but the tooth. ∞

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